

IN THE CLAIMS:

1. (currently amended) A first-side optical data storage disk comprising:
  - a single substrate having first and second principal surfaces;
  - a first metal/alloy layer overlying the first principal surface of the substrate;
  - a first transparent layer overlying the first metal/alloy layer;
  - a second metal/alloy layer overlying the first transparent layer; and
  - a first optical coupling layer overlying the second metal/alloy layer, the first optical coupling layer being adapted to optically couple the second metal/alloy layer to air a laser beam arriving from a far-field source.
2. (original) The first-side optical data storage disk of Claim 1 wherein said first principal surface of said substrate comprises premastered data which includes a series of pits and/or bumps, said first metal/alloy layer conforming to the shape of said pits and/or bumps.
3. (original) The first-side optical data storage disk of Claim 2 wherein the transmissivity of said second metal/alloy layer at the wavelength of said laser beam is greater than 10%.
4. (original) The first-side optical data storage disk of Claim 2 wherein said first metal/alloy layer contains a writeable area.
5. (original) The first-side optical data storage disk of Claim 1 wherein said first metal/alloy layer contains a writeable area.
6. (original) The first-side optical data storage disk of Claim 5 wherein the transmissivity of said second metal/alloy layer at the wavelength of said laser beam is in the range of 25% to 50%.

LAW OFFICES OF  
MACPHERSON KWOK CHEN &  
HEID LLP  
2402 MICHELSON DRIVE  
SUITE 210  
IRVINE CA 92612  
(949) 752-7040  
FAX (949) 752-7049

7. (original) The first-side optical data storage disk of Claim 5 wherein said second metal/alloy layer contains a writeable area.

8. (original) The first-side optical data storage disk of Claim 1 wherein said second metal/alloy layer comprises premastered data which includes a series of pits and/or bumps.

9. (original) The first-side optical data storage disk of Claim 1 wherein said second metal/alloy layer contains a writeable area.

10. (original) The first-side optical data storage disk of Claim 1 wherein said first metal/alloy layer comprises aluminum.

11. (original) The first-side optical data storage disk of Claim 10 wherein said second metal/alloy layer comprises SbInSn.

12. (currently amended) The first-side optical data storage disk of Claim 1 comprising:  
a third metal/alloy layer underlying said second principal surface of said single substrate;

a second transparent layer underlying said third metal/alloy layer;

a fourth metal/alloy layer underlying said second transparent layer, and

a second optical coupling layer underlying the fourth metal/alloy layer, the second optical coupling layer being adapted to optically couple the fourth metal/alloy layer to air a laser beam arriving from the far field source.

13. (original) The first-side optical data storage disk of Claim 12 wherein said second principal surface of said substrate comprises premastered data which includes a series of pits and/or bumps in said substrate, said third metal/alloy layer conforming to the shape of said pits and/or bumps.

LAW OFFICES OF  
MACPHERSON KWOK CHEN &  
BEID LLP  
1402 MICHIGAN DRIVE  
SUITE 210  
IRVINE CA 92612  
(949) 752-7040  
FAX (949) 752-7049

14. (original) The first-side optical data storage disk of Claim 13 wherein said third metal/alloy layer contains a writeable area.
15. (original) The first-side optical data storage disk of Claim 12 wherein said second metal/alloy layer comprises premastered data which includes a series of pits and/or bumps.
16. (original) The first-side optical data storage disk of Claim 15 wherein said second metal/alloy layer contains a writeable area.
17. (original) The first-side optical data storage disk of Claim 13 wherein said second metal/alloy layer contains a writeable area.
18. (previously presented) The first-side optical data storage disk of Claim 1 wherein said single substrate comprises polycarbonate.
19. (original) The first-side optical data storage disk of Claim 1 wherein said first transparent layer comprises a photopolymer resin.
20. (original) The first-side optical data storage disk of Claim 1 wherein said first transparent layer comprises a curable polymer.
21. (original) The first-side optical data storage disk of Claim 1 wherein said first transparent layer comprises a UV curable material.
22. (original) The first-side optical data storage disk of Claim 1 wherein said substrate has a thickness in the range of 200 to 1000  $\mu\text{m}$ .
23. (original) The first-side optical data storage disk of Claim 22 wherein said substrate has a thickness of approximately 500  $\mu\text{m}$ .

LAW OFFICES OF  
MACPHERSON KWOK CHEN &  
HEID LLP  
2402 MCGREGOR DRIVE  
SUITE 210  
IRVINE CA 92612  
(714) 752-7040  
FAX (714) 752-7049

24. (original) The first-side optical data storage disk of Claim 1 wherein said first transparent layer has a thickness in the range of 15 to 200  $\mu\text{m}$ .
25. (original) The first-side optical data storage disk of Claim 24 wherein said first transparent layer has a thickness of approximately 50  $\mu\text{m}$ .
26. (original) The first-side optical data storage disk of Claim 1 comprising a protective coating between said first metal/alloy layer and said first transparent layer.
27. (cancelled)
28. (cancelled)
29. (cancelled)
30. (original) The first-side optical data storage disk of Claim 1 wherein the reflectivity of said first and second metal/alloy layers at the wavelength of said laser beam is greater than 25%.
31. (original) The first-side optical data storage disk of Claim 1 wherein said disk is less than 50 mm in diameter.
32. (original) The first-side optical data storage disk of Claim 31 wherein said disk is at or below 32 mm in diameter.
33. (original) The first-side optical data storage disk of Claim 1 wherein said first metal/alloy layer is a read-only layer and said second metal/alloy layer comprises a writeable area, said writeable area comprising a code which permits access to a portion of data recorded on the first metal/alloy layer.

LAW OFFICES OF  
MACPHERSON KWOK CHEN &  
HEID LLP  
2103 MICHELSON DRIVE  
SUITE 210  
IRVINE, CA 92612  
(714) 732-7040  
FAX (714) 732-7049

34. (original) The first-side optical data storage disk of Claim 33 wherein said coded permits access to a portion of data recorded on the second metal/alloy layer.

35. (currently amended) A method of reading data comprising:

providing an first-side optical disk including:

a single substrate having first and second principal surfaces;

a first metal/alloy layer overlying the first principal surface of said substrate;

a first transparent layer overlying the first metal/alloy layer, the first transparent layer having a thickness of greater than 15 microns;

a second metal/alloy layer overlying the first transparent layer; and

a first optical coupling layer overlying the second metal/alloy layer, the first optical coupling layer being adapted to optically couple the second metal/alloy layer to air a laser beam arriving from a far field source;

directing the a laser beam from above the principal surface of the substrate towards the first and second metal/alloy layers such that the laser beam is partially reflected from and partially transmitted through the second metal/alloy layer;

detecting a first portion of the laser beam that is reflected from the first metal/alloy layer; and

detecting a second portion of the laser beam that is reflected from the second metal alloy layer.

Claims 36-58. (cancelled)

LAW OFFICES OF  
MACPHERSON KWOK CHEN &  
HEID LLP  
2402 MICHELSON DRIVE  
SUITE 210  
IRVINE CA 92613  
(949) 752-7040  
FAX (949) 752-7049